AUTOMATED WORD PROCESSOR FOR CHINESE-STYLE LANGUAGES

BACKGROUND OF THE INVENTION

The background of this invention will be set forth in two parts.

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Amendments to the Specification

1. FIELD OF INVENTION

The present invention relates generally to an improved design of word and data

processing device for the Chinese-style one-syllable ~~languages~~ words. This invention will

facilitate an automated means for word and data processing involving the use of phonetically

Latinized languages such as Chinese.

2. DESCRIPTION OF THE PRIOR ARTS /

Two types of word input devices for Chinese-style languages have been used. The first

kind is to select individually each word from a memory reservoir of the Chinese-style

vocabulary and to plant it at the intended location in the sequence of a sentence. The second ~~type~~

kind is to ~~write~~ type in phonetically each Chinese-style word in Latin or English alphabets for its

sound value, then a corresponding word or words will appear on a display to be selected by the

device operator according to its meaning. Such as that:

2-01   yi (the sound value) = Chinese words: 一, 易, 乙, 医, 移, 亦, 伊, 宜, 姨, and more.

2-02   jiao (the sound value) = Chinese words: 叫, 脚, 教, 焦, 娇, 蕉, 交, 膠, and more.

There are also word-input devices that use the combination of these two methods.

The efficiencies of these devices are ~~minimal~~ dismal. The first kind device is essentially

the age-old manual word-input machine. The second kind device cannot be used effectively

because of the massive numbers of words in the Chinese-style languages that sound phonetically

too close to be distinguishable from one another as shown in above Examples 2-01 and 2-02. The

slow input speed is the basic cause of inefficiency of present Chinese-style word processors.

SUMMARY OF THE INVENTION

The principal object of this invention is to provide means of high speed automated processing for words of Chinese-style languages. A new ~~type~~ kind of data processing terminal devices can be constructed based on this invention. ~~Each of the new terminal has a set of new typing letter keys in addition to the traditional alphabets to produce the specific lettering symbols in Chinese for classification of actual Chinese words. The Chinese-type words are to be produced phonetically with alphabets together with these new Chinese symbols. The purpose of these new symbols is to differentiate the large number of phonetically similar words in Chinese-style languages. These selected symbols are the most distinctive ones that Chinese people are generally very familiar with.~~ This input terminal adds a set of new sorting symbol keys to the traditional alphanumeric keys to produce classification effect of each Chinese word in Romanized pronunciation. Each Chinese word is produced phonetically with Roman alphabets; a Chinese sorting symbol is inserted before the Romanized Chinese word to define uniqueness of this individual word based on its specific meaning classification. This technique effectively eliminated the homonym problems of Chinese-type words. Chinese people are familiar with these selected distinctive symbols as they use similar ones every day in hand written Chinese characters.

It is also an object of this invention to produce a simple, effective, and reliable device that is also of low cost for high speed word and data processing.

Another purpose of this device is to further improve the efficiency in processing data with Chinese-style language input information. This can be accomplished by using data processing devices based on this invention in conjunction with communication software languages derived from the proprietary TRILAN "TM" vocabularies and its derivatives. The use

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of TRILAN "TM" will vastly facilitate the speed of communication among the three most widely used world languages, namely: English, Spanish, and Chinese.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a schematic drawing indicating the functional relationship between ~~the~~ this new improved terminal ~~devices~~ device and a data processor with output display. The input terminal device embodies the following elements:

1. Alphabetical letter keys of the Roman or English ~~language~~ languages.

2. The numerical keys from 0 to 9.

3. Other miscellaneous symbolic and functional keys.

4. The specific Chinese character keys, ~~that are mostly used for indicative purposes to differentiate the meaning of words of similar phonetic values.~~ these keys categorize meanings of Chinese words. Thus these keys provide visual means for differentiating one Chinese word from many other Chinese words of identical or similar phonetic values. A few of these are also used for stand-alone phonetic ~~purpose~~ words as well, ~~sine these distinctive sounds symbols cannot be obtained by any combination of English alphabets.~~ These distinctive symbols represent ancient first Chinese writings that were started from pictures. Specifically, these sorting symbols are:

4-01	日 = a symbol indicating light, time
4-02	文 = a symbol indicating culture, civilization
4-03	方 = a symbol indicating direction, a state of being, a process
4-04	口 = a symbol indicating food, speak, actions associated with mouth
4-05	亻 = a symbol indicating people and human related activities
4-06	彳 = a symbol indicating action, movement

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4-07 力= a symbol indicating the use of force

4-08 电= a symbol indicating phenomenon associated with electricity

4-09 阝 = a symbol indicating hearing, sound

4-10 目= a symbol indicating viewing with eyes

4-11 月 = a symbol indicating body parts

4-12 扌 = a symbol indicating actions associated with hand

4-13 艹 = a symbol indicating grass, vines, etc.

4-14 木= a symbol indicating wood, wood products

4-15 氵 = a symbol indicating water, liquid

4-16 火 = a symbol indicating fire, heat

4-17 工= a symbol indicating labor, industrial process

4-18 金= a symbol indicating metal, metal products

4-19 土= a symbol indicating soil, dirt, place

4-20 石= a symbol indicating rock, mountain

4-21 纟 = a symbol indicating fabrics, organization

4-22 毛= a symbol indicating wool, hair

4-23 礻 = a symbol indicating worship, respect

4-24 衤 = a symbol indicating covering

4-25 忄 = a symbol indicating mental activities

4-26 医= a symbol indicating medical, health

4-27 之= a symbol indicating transportation, destination, etc.

4-28 阝 = a symbol indicating building, rooms

4-29 虫= a symbol indicating insects and smaller crawling animals

4-30 $\sharp$ = a symbol indicating four feet land animals

4-31 ξ = a symbol indicating air, gas, aerial activities

4-32 $\jmath$ = a symbol indicating feather, flying activities

4-33   # = a symbol indicating measurements

This symbol 4-33, "#", which appears in standard input keyboards is a Chinese character

that had been used over 3,000 years. It means well (water well, gas well, etc.) in Chinese.

It is pronounced as "jen jene" in Chinese, a sound that is coincident. This symbol sounds

similar with a fundamental unit in Chinese weight measurement is used here. It is

adopted here also as a Chinese sorting symbol indicating general measurements

classification. Additionally, the conventional symbol "$" (meaning U. S. dollar) is used

adopted in this invention also as an indicative a sorting symbol for articles or actions

associated with monetary value activities when this "$ symbol" it is used typed in as an

integral part of a Latinized Chinese-style word.

Added Paragraphs

DETAILED DESCRIPTION OF THE INVENTION

Input Chinese words of most common Chinese-style language processors now require operators to type in the sound value of these words spelled in Roman letters. Chinese government codified pronunciation of each of these words that rarely sound like ordinary conversational Chinese language. Since Chinese use only one-syllable words, the problem of homonyms becomes unbearable. None of these Romanized Chinese characters is unique, an operator has to select the correct Chinese character usually from a list of dozens of possibilities. This requirement of constant human intervention makes it unfit to achieve automation for the machines presently in use.

Chinese written words were invented thousands of years ago based on both visual and sound effects together with a method of meaning categorization. Chinese written words are beyond the realm of pure phonetics. Chinese written words are least confusing in this world as there are very few homonyms in them compare to all languages that use alphabets. This was the reason historically to have all official commitments to be in writing. Using Roman letters a to z to provide the sound portion of Chinese written words, together with the special Chinese sorting symbols 4-01 through 4-33 and "$" sign, Chinese words can be typed in with uniqueness. For example, referring to Articles 2-01 and 2-02, by writing:

(The following samples are selected from copyrighted material TRILAN "TM", a language compilation registered in United States of America, by Chang P. Liu. These Romanized Chinese words follow closely with English and Spanish pronunciation customs. Chinese words selected in TRILAN "TM" sound close to daily conversational

Chinese of a large region in China. These words are therefore easier to be remembered by users. These words are generally different from those officially codified words of China now in use for word and data processing). For example: In TRILAN "TM"

#yi = 一(meaning the number "1" in Chinese and nothing else).

#yi-bei = 一百(meaning the number "100" in Chinese and nothing else).

口 jiao-hane = 叫 喊 (meaning "yelling" in Chinese and nothing else).

$jiao-yi = 交易 (meaning "trade" in Chinese and nothing else).

This one-to-one relationship between input Romanized words and corresponding output in genuine Chinese written words indicates that the traditional requirement of human intervention can be eliminated or greatly reduced. This invention effectively increases input speed for Chinese-style words and data processing. It also increases processing reliability as the factor of human errors is reduced to minimum.

The Chinese sorting character symbols 4-01 to 4-33 will be designed using ASCII encoding system to be in compliance with international protocols. These symbols will function just as all other existing alphanumeric characters.